

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number  
**WO 2004/031416 A1**

(51) International Patent Classification<sup>7</sup>: **C12Q 1/70 //**  
C12N 15/37, C12Q 1/68, 1/06

(21) International Application Number:  
PCT/SE2003/001529

(22) International Filing Date: 1 October 2003 (01.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0202897-5 1 October 2002 (01.10.2002) SE

(71) Applicant (for all designated States except US): **QUANTOVIR AB** [SE/SE]; c/o JCH-Gruppen AB, Box 2021, S-750 02 Uppsala (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GYLLENSTEN, Ulf** [SE/SE]; Malma Backe 7H, S-756 47 Uppsala (SE).  
**MOBERG, Martin** [SE/SE]; Luthagsesplanaden 34A, S-752 31 Uppsala (SE).

(74) Agent: **DR LUDWIG BRANN PATENTBYRÅ AB**; Maria Skolgata 83, S-104 62 Stockholm (SE).

(81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND KIT FOR QUANTITATIVE AND QUALITATIVE DETERMINATION OF HUMAN PAPILLOMAVIRUS

(57) **Abstract:** The present invention relates to a method and kit for quantitative and qualitative determination of human papillomavirus, HPV, in a sample. More precisely, for quantitative and qualitative determination of oncogenic HPV to predict the risk of HPV infection resulting in cervical carcinoma. The method and kit enable simultaneous measurement of several oncogenic HPV types.



**WO 2004/031416 A1**